

Amendment and Response

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Serial No.: 09/877,220

Confirmation No.: 8535

Filed: June 8, 2001

For: METHODS FOR TREATING NEUROPATHOLOGICAL STATES AND NEUROGENIC
INFLAMMATORY STATES AND METHODS FOR IDENTIFYING COMPOUNDS USEFUL THEREIN

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

Listing of Claims

1-19. Cancelled

20. (Currently Amended) A method for identifying a compound that alters NR1 subunit distribution in a cell, the method comprising:

contacting a test cell with a compound;

activating an NMDA glutamate receptor present on the test cell and on a control
cell; and

detecting the distribution of NR1 subunit in the test cell and in the control cell,
wherein an alteration in the distribution of NR1 subunit in the test cell contacted with the
compound relative to the distribution of NR1 subunit in a the control cell not contacted with the
compound indicates the compound alters the distribution of NR1 subunit in the cell.

21. (Previously Presented) A method for identifying a compound that alters the amount of
NR1 subunit in a cell, the method comprising:

contacting a cell with a compound;

activating an NMDA glutamate receptor present on the cell; and

detecting the amount of NR1 subunit in the cell;

wherein an alteration in the amount of NR1 subunit in the cell contacted with the compound
relative to the amount of NR1 subunit in a cell not contacted with the compound indicates the
compound alters the amount of NR1 subunit in the cell.

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22-23. Cancelled

24. (Currently Amended) A method for identifying a tyrosine kinase inhibitor that alters NR1 subunit distribution in a cell, the method comprising:

contacting a test cell with a tyrosine kinase inhibitor;

activating an NMDA glutamate receptor present in the test cell and in a control cell; and

detecting the distribution of NR1 subunit in the test cell and in the control cell, wherein an alteration in the distribution of NR1 subunit in the test cell contacted with the tyrosine kinase inhibitor relative to the distribution of NR1 subunit in a the control cell not contacted with the tyrosine kinase inhibitor indicates the tyrosine kinase inhibitor compound alters distribution of NR1 subunit.

25-28. Cancelled

29. (Currently Amended) A method for altering NR1 subunit distribution in a cell, the method comprising:

contacting a test cell with a compound selected from the group consisting of a tyrosine kinase, a tyrosine kinase inhibitor, a tyrosine phosphatase, a tyrosine phosphatase inhibitor, a serine/threonine phosphatase, or a serine/threonine phosphatase inhibitor;

activating an NMDA glutamate receptor present on the test cell and on a control cell; and

detecting the distribution of NR1 subunit in the test cell and the control cell, wherein the distribution of NR1 subunit in the test cell contacted with the compound is altered relative to the distribution of NR1 subunit in a the control cell not contacted with the compound.

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30. (Currently Amended) The method of claim 29 wherein the amount of NR1 subunit associated with a nucleus of a test cell contacted with a compound is decreased.
31. (Currently Amended) The method of claim 29 wherein the amount of NR1 subunit associated with a nucleus of a test cell is increased.
32. (Currently Amended) The method of claim 20, wherein the test cell and the control cell is neuron.
33. (Previously Presented) The method of claim 20, wherein the contacting a cell with a compound occurs before, during, or after activating an NMDA glutamate receptor present in the cell.
34. (Currently amended) A method for identifying a compound that alters NR1 subunit distribution in a cell, the method comprising:
contacting a cell with a compound;
activating an NMDA glutamate receptor present on the cell; and
detecting the distribution of NR1 subunit in the cell, wherein an alteration in the distribution of NR1 subunit in the cell contacted with the compound relative to the distribution of NR1 subunit in a cell not contacted with the compound indicates the compound alters the distribution of NR1 subunit in the cell. The method of claim 20, wherein the alteration in the distribution of NR1 subunit in the cell is a decrease in the amount of NR1 subunit associated with the nucleus.
35. (Currently amended) A method for identifying a compound that alters NR1 subunit distribution in a cell, the method comprising:
contacting a cell with a compound;

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activating an NMDA glutamate receptor present on the cell; and

detecting the distribution of NR1 subunit in the cell, wherein an alteration in the distribution of NR1 subunit in the cell contacted with the compound relative to the distribution of NR1 subunit in a cell not contacted with the compound indicates the compound alters the distribution of NR1 subunit in the cell. The method of claim 20, wherein the alteration in the distribution of NR1 subunit in the cell is an increase in the amount of NR1 subunit associated with the nucleus.

36. (Currently Amended) The method of claim 20, wherein the alteration in the distribution of NR1 subunit in the test cell is a decrease in the total amount of NR1 subunit in the test cell.

37. (Currently Amended) The method of claim 20, wherein the alteration in the distribution of NR1 subunit in the test cell is an increase in the total amount of NR1 subunit in the test cell.

38. (Previously Presented) The method of claim 20, wherein the compound is selected from the group consisting of a tyrosine kinase inhibitor, a tyrosine phosphatase and a serine/threonine phosphatase.

39. (Previously Presented) The method of claim 20, wherein the compound is selected from the group consisting of a tyrosine kinase, a tyrosine phosphatase inhibitor, and a serine/threonine phosphatase inhibitor.

40. (Currently Amended) The method of claim 20, wherein the alteration in the distribution of NR1 subunit in the test cell is associated with a decrease in the amount of phosphorylated NR1 subunit in the test cell.

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41. (Currently Amended) The method of claim 20, wherein the alteration in the distribution of NR1 subunit in the test cell is associated with an increase in the amount of phosphorylated NR1 subunit in the test cell.
42. (Previously Presented) The method of claim 21, wherein the cell is neuron.
43. (Previously Presented) The method of claim 21, wherein the contacting a cell with a compound occurs before, during, or after activating an NMDA glutamate receptor present in the cell.
44. (Previously Presented) The method of claim 21, wherein the alteration in the amount of NR1 subunit in the cell is a decrease in the total amount of NR1 subunit in the cell.
45. (Previously Presented) The method of claim 21, wherein the alteration in the amount of NR1 subunit in the cell is an increase in the total amount of NR1 subunit in the cell.
46. (Currently amended) A method for identifying a compound that alters the amount of NR1 subunit in a cell, the method comprising:
contacting a cell with a compound;
activating an NMDA glutamate receptor present on the cell; and
detecting the amount of NR1 subunit in the cell;
wherein an alteration in the amount of NR1 subunit in the cell contacted with the compound relative to the amount of NR1 subunit in a cell not contacted with the compound indicates the compound alters the amount of NR1 subunit in the cell. ~~The method of claim 21,~~ wherein the alteration in the amount of NR1 subunit in the cell is a decrease in the amount of NR1 subunit associated with the nucleus.

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47. (Currently amended) A method for identifying a compound that alters the amount of NR1 subunit in a cell, the method comprising:

contacting a cell with a compound;

activating an NMDA glutamate receptor present on the cell; and

detecting the amount of NR1 subunit in the cell;

wherein an alteration in the amount of NR1 subunit in the cell contacted with the compound relative to the amount of NR1 subunit in a cell not contacted with the compound indicates the compound alters the amount of NR1 subunit in the cell. ~~The method of claim 21,~~ wherein the alteration in the amount of NR1 subunit in the cell is an increase in the amount of NR1 subunit associated with the nucleus.

48. (Previously Presented) The method of claim 21, wherein the compound is selected from the group consisting of a tyrosine kinase inhibitor, a tyrosine phosphatase and a serine/threonine phosphatase.

49. (Previously Presented) The method of claim 21, wherein the compound is selected from the group consisting of a tyrosine kinase, a tyrosine phosphatase inhibitor, and a serine/threonine phosphatase inhibitor.

50. (Previously Presented) The method of claim 21, wherein the alteration in the distribution of NR1 subunit in the cell is associated with a decrease in the amount of phosphorylated NR1 subunit in the cell.

51. (Previously Presented) The method of claim 21, wherein the alteration in the distribution of NR1 subunit in the cell is associated with an increase in the amount of phosphorylated NR1 subunit in the cell.

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52. (Currently Amended) The method of claim 24 wherein the test cell and the control cell is a neuron.

53. (Currently Amended) The method of claim 24, wherein the contacting a cell with a tyrosine kinase inhibitor occurs before, during, or after activating an NMDA glutamate receptor present in the cell.

54. (Currently Amended) A method for identifying a tyrosine kinase inhibitor that alters NR1 subunit distribution in a cell, the method comprising:

contacting a cell with a tyrosine kinase inhibitor;

activating an NMDA glutamate receptor present in the cell; and

detecting the distribution of NR1 subunit in the cell, wherein an alteration in the distribution of NR1 subunit in the cell contacted with the tyrosine kinase inhibitor relative to the distribution of NR1 subunit in a cell not contacted with the tyrosine kinase inhibitor indicates the compound alters distribution of NR1 subunit. ~~The method of claim 24;~~ wherein the alteration in the distribution of NR1 subunit in the cell is a decrease in the amount of NR1 subunit associated with the nucleus.

55. (Currently Amended) A method for identifying a tyrosine kinase inhibitor that alters NR1 subunit distribution in a cell, the method comprising:

contacting a cell with a tyrosine kinase inhibitor;

activating an NMDA glutamate receptor present in the cell; and

detecting the distribution of NR1 subunit in the cell, wherein an alteration in the distribution of NR1 subunit in the cell contacted with the tyrosine kinase inhibitor relative to the distribution of NR1 subunit in a cell not contacted with the tyrosine kinase inhibitor indicates the compound alters distribution of NR1 subunit. ~~The method of claim 24;~~ wherein the alteration in

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the distribution of NR1 subunit in the cell is an increase in the amount of NR1 subunit associated with the nucleus.

56. (Currently Amended) The method of claim 24, wherein the alteration in the distribution of NR1 subunit in the test cell is a decrease in the total amount of NR1 subunit in the test cell.

57. (Currently Amended) The method of claim 24, wherein the alteration in the distribution of NR1 subunit in the test cell is an increase in the total amount of NR1 subunit in the test cell.

58. (Currently Amended) The method of claim 24, wherein the alteration in the distribution of NR1 subunit in the test cell is associated with a decrease in the amount of phosphorylated NR1 subunit in the test cell.

59. (Currently Amended) The method of claim 24, wherein the alteration in the distribution of NR1 subunit in the test cell is associated with an increase in the amount of phosphorylated NR1 subunit in the test cell.

60. (Currently Amended) The method of claim 29 wherein the test cell and the control cell is a neuron.

61. (Previously Presented) The method of claim 29, wherein the contacting a cell with a compound occurs before, during, or after activating a NMDA glutamate receptor present in the cell.

62. (Currently Amended) The method of claim 29, wherein the total amount of NR1 subunit in the test cell is decreased.

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63. (Currently Amended) The method of claim 29, wherein the total amount of NR1 subunit in the test cell is increased.

64. (Currently Amended) The method of claim 29, wherein the amount of phosphorylated NR1 subunit in the test cell is decreased.

65. (Currently Amended) The method of claim 29, wherein the amount of phosphorylated NR1 subunit in the test cell is increased.

66. (Cancelled)

67. (Cancelled)